

*JFW*

**PATENT**

Attorney Docket No. 224006  
Client Reference No. 305891.1

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:

Leslie Lampert

Group Art Unit: Unassigned

Application No. 10/750,600

Examiner: Unassigned

Filed: December 30, 2003

For: SIMPLIFIED PAXOS

**CERTIFICATE OF MAILING**

I hereby certify that this Information Disclosure statement and the accompanying Form 1449 are being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Mail Stop, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date: 12/15/04 Monica Gray

**INFORMATION DISCLOSURE STATEMENT**

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Pursuant to 37 CFR 1.97 and 1.98, the references listed on the enclosed Form PTO-1449 and/or Substitute Form PTO-1449 ("Form 1449") are submitted for consideration by the Examiner in the examination of the above-identified patent application.

The full consideration of the references in their entirety by the Examiner is respectfully requested and encouraged. Also, it is respectfully requested that the references be entered into the record of the present application and that the Examiner place his or her initials in the appropriate area on the enclosed Form 1449, thereby indicating the Examiner's consideration of each of the references.

The submission of the references listed on the Form 1449 is for the purpose of providing a complete record and is not a concession that the references listed thereon are prior art to the invention claimed in the patent application. The right is expressly reserved to establish an invention date earlier than the above-identified filing date in order to remove any reference submitted herewith as prior art should it be deemed appropriate to do so.

Further, the submission of the references is not to be taken as a concession that any reference represents art that is relevant or analogous to the claimed invention. Accordingly, the right to argue that any reference is not properly within the scope of prior art relevant to an examination of the claims in the above-identified application is also expressly reserved.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /A.M./

The Information Disclosure Statement is being filed:

- within** any one of the following time periods: (a) within three months of the filing date of a national application other than a continued prosecution application under 37 CFR 1.53(d); (b) within three months of the date of entry of the national stage as set forth in 37 CFR 1.491 of an international application; (c) before the mailing date of a first Office Action on the merits; or (d) before the mailing of a first Office Action after the filing of a request for continued examination under 37 CFR 1.114.
- after** (a), (b), (c) or (d) above, but before the mailing date of a final action under 37 CFR 1.113, a Notice of Allowance under 37 CFR 1.311, or an action that otherwise closes prosecution in the application, and includes *one* of:
  - the Statement under 37 CFR 1.97(e) (see "Statement under 37 CFR 1.97(e)" below).
  - or*
    - the fee of \$180 set forth in 37 CFR 1.17(p) (see "Fees" below).
- after** the mailing date of a final action under 37 CFR 1.113 or a Notice of Allowance under 37 CFR 1.311, or an action that otherwise closes prosecution in the application, and on or before payment of the issue fee, and includes the Statement under 37 CFR 1.97(e) (see "Statement under 37 CFR 1.97(e)" below), and the fee of \$180 as set forth in 37 CFR 1.17(p) (see "Fees" below).
- after** the mailing date of a Notice of Allowance under 37 CFR 1.311, and on or before payment of the issue fee, and **within** thirty days of receiving each item of information contained in the Information Disclosure Statement, and includes the Statement under 37 CFR 1.704(d) (see "Statement under 37 CFR 1.704(d)" below), and the fee of \$180 as set forth in 37 CFR 1.17(p) (see "Fees" below).

NOTE: This is for original applications except applications for a design patent, filed on or after May 29, 2000, wherein a paper containing only an Information Disclosure Statement in compliance with 37 CFR 1.97 and 1.98 is being filed.

#### Copies of the References

- Copies of all of the references listed on the enclosed Form 1449 are enclosed herewith.
- Copies of U.S. patents and patent applications that are listed on the accompanying Form 1449 are not enclosed herewith. Copies of other references identified on the accompanying Form 1449 are enclosed herewith.
- Attached to each reference not in the English language is a concise explanation of the relevance pursuant to 37 CFR 1.98(a)(3). An English-language equivalent/patent, or an English-language abstract, or an English-language version of the search report or action by a foreign patent office in a counterpart foreign application indicating the degree of relevance found by the foreign office is being submitted in lieu of a concise explanation of the relevance pursuant to 37 CFR 1.98(a)(3).

- A copy of the foreign search report is enclosed herewith.
- Some of the references listed on the enclosed Form 1449 were previously identified in the parent application(s) of the present application, and copies of these references were furnished at that time. Accordingly, additional copies of the references are not submitted herewith, so as not to burden the file with duplicate copies of references. The Examiner is respectfully requested to carefully review the references in accordance with the requirements set out in the Manual of Patent Examining Procedure. In accordance with 37 CFR 1.98(d), the details of the parent application(s) relied upon for an earlier filing date under 35 USC 120 in which copies of the references were previously furnished are set out below:

U.S. APPLICATIONS		Status (check one)		
U.S. APPLICATIONS	U.S. FILING DATE	PATENTED	PENDING	ABANDONED
1.				
2.				
3.				

**Other Applications**

- The Examiner's attention is directed to the following U.S. patent application(s):

U.S. APPLICATIONS		Status (check one)		
U.S. APPLICATIONS	U.S. FILING DATE	PATENTED	PENDING	ABANDONED
10/184,767	June 28, 2002		X	
10/184,773	June 28, 2002		X	
10/219,106	August 15, 2002		X	
10/694,596	October 23, 2003		X	
10/750,601	December 30, 2003		X	
10/872,338	June 18, 2004		X	
10/872,339	June 18, 2004		X	
10/871,134	June 18, 2004		X	
10/996,350	November 23, 2004		X	
10/996,351	November 23, 2004		X	

**Statement under 37 CFR 1.97(e)**

- The **undersigned** hereby states that each item of information contained in the Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign patent application not more than three months prior to the filing of the Information Disclosure Statement.

The **undersigned** hereby states that no item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign patent application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in the Information Disclosure Statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the Information Disclosure Statement.

**Statement under 37 CFR 1.704(d)**

The **undersigned** hereby states that each item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application and that this communication was not received by any individual designated in 37 CFR 1.56(c) more than thirty days prior to the filing of the Information Disclosure Statement.

**Fees**

No fee is owed by the applicant(s).  
 The **IDS Fee of \$180** under 37 CFR 1.17(p) is enclosed herewith.

**Method of Payment of Fees**

Attached is a check in the amount of \$ . . .  
 Charge Deposit Account No. 12-1216 in the amount of \$ . . . (A duplicate copy of this communication is enclosed for that purpose.)

**Authorization to Charge Additional Fees**

If any additional fees are owed in connection with this communication, please charge Deposit Account No. 12-1216. (A duplicate copy of this communication is enclosed for that purpose.)

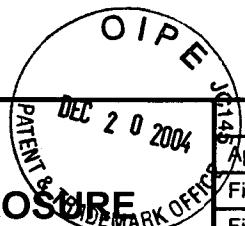
**Instructions as to Overpayment**

Credit Account No. 12-1216.  
 Refund

  
Vladan M. Vasiljevic, Reg. No. 45,177  
LEYDIG, VOIT & MAYER, LTD.  
Two Prudential Plaza, Suite 4900  
180 North Stetson Avenue  
Chicago, Illinois 60601-6780  
(312) 616-5600 (telephone)  
(312) 616-5700 (facsimile)

Date: December 15, 2004

Please type a plus sign (+) inside this box →



Substitute for form 1449A/B/PTO

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 2 Attorney Docket Number 224006  
(MS Ref. # 305891.01)

## Complete if Known

Application Number	10/750,600
Filing Date	December 30, 2003
First Named Inventor	Leslie Lamport
Group Art Unit	Unassigned
Examiner Name	Unassigned

Attorney Docket Number 224006  
(MS Ref. # 305891.01)

## U.S. PATENT DOCUMENTS

Examiner Initials	Doc. No.	U.S. Patent Document		Name of Patentee or Applicant	Date of Publication	Filing Date If Appropriate
		Application or Patent Number	Kind Code			
A 1	6,671,821 B1			Castro, et al.	Dec. 30, 2003	

## OTHER - NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Doc. No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number (s), publisher, city and/or country where published.	Translation	
			Yes	No <sup>++</sup>
BF	GUERRAOUI, Rachid et al.; <i>Reducing the Cost for Non-Blocking in Atomic Commitment</i> ; Département d'Informatique, Ecole Polytechnique Fedérale de Lausanne, pp. 1-11, May 1996.			
BG	HAYASHIBARA, Noahiro et al.; <i>Performance Comparison Between the Paxos and Chandra-Toueg Consensus Algorithms</i> ; Département d'Informatique, Ecole Polytechnique Fedérale de Lausanne; Technical Report IC-2002-61, pp. 1-11, August 2002.			
BH	AWERBUCH, Baruch et al.; <i>Maintaining Database Consistency in Peer to Peer Networks</i> ; Department of Computer Science, John Hopkins University; Technical Report CNDS-2002-1, pp. 1-14, February 6 <sup>th</sup> , 2002.			
BI	BIRRELL, Andrew D. et al.; <i>The Echo Distributed File System</i> ; Digital Equipment Corp. Systems Research Center; Technical Report 111, pp. 1-22, September 10, 1993.			
BJ	LISKOV, Barbara et al.; <i>Replication in the Harp File System</i> ; Proceedings of the 13 <sup>th</sup> Symposium on Operating System Principles, 13 pp., October 1991.			
BK	HISGEN, Andy et al.; <i>New-Value Logging in the Echo Replicated File System</i> ; Digital Equipment Corp. Systems Research Center, Research Report 104, pp. 1-39, June 1993.			
BL	LONG, Darrell D.E. et al.; <i>Voting with Regenerable Volatile Witnesses</i> ; University of California Computer and Information Sciences; Technical Report, pp. 1-20, April 1990.			
BM	SWART, Garret et al.; <i>Availability in the Echo File System</i> ; Digital Equipment Corp. Systems Research Center, Research Report 112, pp. 1-43, September 1993.			
BN	ADYA, A., et al.; <i>FARSITE: Federated, Available, and Reliable Storage for an Incompletely Trusted Environment</i> ; In Proc. 5 <sup>th</sup> OSDI, Boston, MA, pp. 1-14, Dec. 2002.			
BO	CASTRO, M., <i>Practical Byzantine Fault Tolerance</i> ; Ph.D. Thesis Technical Report MIT-LCS-TR-817, MIT, Jan. 2001.			
BP	CHOCKLER, G. V., et al., <i>Group Communication Specifications: A Comprehensive Study</i> ; <i>ACM Computing Surveys</i> , pp. 33(4):427-469, Dec. 2001.			
BQ	DEPRISCO, R., et al., <i>Revisiting the Paxos Algorithm</i> ; In Proc. 11 <sup>th</sup> Int'l Workshop on Distributed Algorithms, pp. 111-125, Sept. 1997.			
BR	LAMPORT, L., <i>Using Time Instead of Timeout for Fault Tolerance in Distributed Systems</i> ; <i>ACM Transactions on Programming Languages and Systems (TOPLAS)</i> , pp. 6(2):264-280, Apr. 1984.			

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /A.M./

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

				Complete if Known	
				Application Number	10/750,600
				Filing Date	December 30, 2003
				First Named Inventor	Leslie Lamport
				Group Art Unit	Unassigned
				Examiner Name	Unassigned
Sheet	2	of	2	Attorney Docket Number	224006 (MS Ref. # 305891.01)
	BS	LAMPORT, L., et al., <i>Cheap Paxos</i> ; In Proc. International Conference on Dependable Systems and Networks (DSN), Florence, Italy, 2004.			
	BT	LYNCH, N., et al., <i>RAMBO: A Reconfigurable Atomic Memory Service for Dynamic Networks</i> ; In Proc. 16 <sup>th</sup> International Symposium on Distributed Computing, Toulouse, France, pp. 173-190, Oct. 2002.			
	BU	NARASIMHAN, P., et al., <i>Replica Consistency of CORBA Objects in Partitionable Distributed Systems</i> , 1997.			
	BV	OKI, B.M., <i>Viewstamped Replication for Highly Available Distributed Systems</i> ; Ph.D. Thesis Technical Report MIT/LCS/TR-423, MIT, Aug. 1988.			
	BW	OKI, B.M., et al., <i>Viewstamped Replication: A New Primary Copy Method to Support Highly-Available Distributed Systems</i> ; In Proc. 7 <sup>th</sup> Symposium on Principles of Distributed Computing, Aug. 1988, pp. 8-17.			
	BX	RODRIGUES, R., et al., <i>BASE: Using Abstractions to Improve Fault Tolerance</i> ; In Proc. 18 <sup>th</sup> ACM Symposium on Operating System Principles, Bant, Canada, pp. 15-28, Oct. 2001.			
	BY	SCHNEIDER, F.B., <i>Synchronization in Distributed Programs</i> ; ACM Transactions on Programming Languages and Systems (TOPLAS); pp. 4(2):125-148.), Apr. 1982.			
	BZ	YU, H., et al., <i>Consistent and Automatic Replica Regeneration</i> ; In Proc. 1 <sup>st</sup> NSDI, San Francisco, CA, pp. 323-326, 2004.			
	CA	PEDONE, F., et al., <i>Handling Message Semantics with Generic Broadcast Protocols</i> , Distributed Computing 15, pp. 97-107, 2002.			
	CB	CUKIER, M., et al., <i>AQuA: An Adaptive Architecture that Provides Dependable Distributed Objects</i> , In Proc. 17 <sup>th</sup> Symposium on Reliable Distributed Systems, pp. 245-253, West Lafayette, IN, Oct. 1998.			
	CC	CUKIER, M., et al., <i>AQuA: An Adaptive Architecture that Provides Dependable Distributed Objects</i> , IEEE Transactions on Computers, Vol. 52, No. 1, pp. 31-50, Jan. 2003.			
	CD	CHARRON-BOST, Bernadette, et al., <i>"Uniform Consensus is Harder than Consensus</i> (extended abstract), Technical Report DSC/2000/028, Switzerland, May 2000			
	CE	DePRISCO, Robert, et al., <i>Revisiting the PAXOS Algorithm</i> , Theroretical Computer Science, 243:35-91, 2000			
	CF	FISCHER, Michael J., et al., <i>Impossibility of Distributed Consensus with One Faulty Process</i> , Journal of the ACM, 32(2):374-382, April 1985			
	CG	LAMPORT, Leslie, <i>Lower Bounds for Asynchronous Consensus</i> , in <u>Future Distributed Computing</u> , Vol. 2584 of Lecture Notes in Computer Science, pp. 22-23, Spring, 2003			
	CH	MAZURKIEWICZ, A., <i>Semantics of Concurrent Systems: A Modular Fixed-Point Trace Approach</i> ; Institute of Computer Science, Poland, pp. 353-375.			

Examiner Signature

/Anthony Mejia/

Date Considered

06/22/2009

\* A concise statement of relevance is being submitted in lieu of a translation. 37 CFR 1.98(a)(3).

+ An English-language equivalent/patent, or an English-language abstract, or an English-language version of the search report or action by a foreign patent office in a counterpart foreign application indicating the degree of relevance found by the foreign office is being submitted in lieu of a concise explanation of relevance under 37 CFR 1.98(a)(3).

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /A.M./